Request for Economic Stimulus Funds

Concept Proposal

Submitters (Name of Workgroup & Chair/Co-Chairs):
Technology and Networking – Al Lind, Chair
Digital Repositories Writing Team – Miko Pattie, Co-Team Captain, Enid Wohlstein, Co-Team Captain
Kentucky Learning Depot Steering Committee - Ann Riggs, Chair

Project Title:

Kentucky Learning Depot: The 21st Century Learning Content Repository and Delivery System (http://kylearningdepot.org)

Project Partners (Known or Anticipated):

The organizations that are currently involved in the Kentucky Learning Depot are:
        (http://kylearningdepot.org/workteams/depotstakeholders/members.htm)
Center for Rural Development (CRD)
Council on Postsecondary Education (CPE)
Eastern Kentucky University (EKU)
Education Cabinet
Education Professional Standards Board (EPSB)
Fayette County Public Schools
Franklin County Adult Education Center
Jefferson County Public Schools
Kenton County Public schools
Kentucky Community and Technical College System (KCTCS)
Kentucky Department of Education (KDE)
Kentucky Department of Libraries and Archives (KDLA)
Kentucky Education Television (KET)
Morehead State University
Murray State University
Northern Kentucky University
University of Kentucky
University of Louisville
Western Kentucky University

Anticipated: Publishers, Open Education Resources (OER) (including Open Textbooks) Repositories

 The staff members and educators from these agencies, schools and institutions are on the Depot work teams (http://kylearningdepot.org/workteams/) to build and shape The Depot to be that single-point-of-entry repository of high-quality digital content aligned with standards and competencies for educators and learners in Kentucky.

Project Background & Purpose (Justification for Project):

Given the strong correlation between educational attainment and per capita income, Kentucky, 48th for people over 25 with bachelor's degrees and 46th for per capita income, has a moral imperative to sustain the efforts put forth through the 1990 Kentucky Education Reform Act and the 1997 Postsecondary Education Improvement Act. When compared with the rest of the world, 78% of Kentucky counties are below Mexico on the percentage of adults with a bachelor's degree or higher. This becomes even more compelling with the recent economic downturn establishing that we need to be competitive in this exceedingly "flat" world that is increasingly digital and global.

We know that digital immigrants are teaching digital natives in many of our classrooms. We know that learning takes place whenever, wherever, and with whomever. We know that we need to take advantage of this disruptive, technology-embedded, and social-networked base to teach and engage our learners. And we know that it will take 21st century solutions to reframe teaching and learning and to support our rethinking on how best to train our educators to meet the needs of today's learners. A gateway to vetted, quality digital learning content and a learning community to build upon one another's successes with the best educational practices can scaffold digital immigrant educators through their transition to 21st century classrooms.

Key education issues Kentucky is addressing are daunting but not unsolvable. Aligning competency standards, using statewide placement exams, and adopting common, flexible, and adaptable course units can start to help address college readiness and success. For general education courses that enable transferability among institutions, developing statewide competency standards and adopting common, flexible, and adaptable course units can also help reduce duplication of efforts and improve students' completion rate in both secondary and post-secondary education. To develop or re-train our work force for 21st century jobs that impact economic development requires new ways of thinking and planning for successful educational environments.

With state budget support for education shrinking, it is imperative that we identify and implement strategies that contain cost and reduce duplication efforts, and that we rethink together how to use high quality digital tools to identify and implement strategies that improve student-learning outcomes. The Kentucky Learning Depot can serve as a "commons" area where common course units are vetted and approved by content experts and are housed for easy access. The Depot can also serve as a learning community where educators can help one another create and reuse quality-learning content effectively.

Project Description (General Goals & Implementation Strategies):

It's the first day of school for Mary, a newly graduated science teacher, when she arrives in Lincoln High School before the school year starts. Mary was granted a KHEAA Teacher Scholarship as an undergraduate and she has been assigned to Lincoln, a designated under-served

school, for a two-year commitment. There will only be 3 girls and 6 boys in her class in this small, rural school. It is 2:00 on a Sunday afternoon. As she looks at the old and dilapidated lab equipment, Mary remembers hearing there is a possibility that the science program will be phased out if funding isn't available to support upgrading. Mary recognizes that she has a challenge.

She sits down with her laptop, logs on to her course management portal, and spots a tab titled "Kentucky Learning Depot." Mary has seen several of her university professors use digital resources and she is curious to see what is in this Depot as she clicks to a welcome screen. She notices links to resources categorized as full courses, units, games, animations, simulations, lesson plans, tutorials, remote instrumentation, virtual labs, and open textbooks. For her first search, she types in "science," "high school," "full course," and "*****" (5-star rating). The result of her search displays courses labeled "Environmental Science," "Physics," and "Biology" all from the National Repository of Online Courses. She reads that the Depot has unbundled these courses into units for ease of use. After reviewing and reading some of the online feedback comments made by her Kentucky colleagues who have used the units, Mary drags the units, assessments, and multimedia learning tools she believes will be useful for her instruction and drops them into her course space. Going back to the Depot, she searches for engaging animations that she believes will result in active learning on the topic of climate change. She types "climate change," "animation," and ">***" (rated with more than 3 stars), and several animations from KET and NSF's National Science Digital Library are displayed for her review. Again, Mary drags the animations she's interested in using in her class and drops them into her course space. She then searches for open textbooks by typing "science," "high school," "open textbook," and "*****" and several titles from a repository called Connexions appear. Mary selects a couple of the textbooks and individual chapters and moves them to her course space. Using the same search strategy, Mary searches for remote instrumentation to make up for the lack of equipment in her science classroom and then she locates appropriate virtual field trips that the class can take while sitting in their classroom. With these online transactions, Mary is now able to start developing activities for her science courses. She is hopeful that she can engage and nurture her students in learning and doing science by using the world as their classroom, even in their remote and rural Kentucky community.

Mary is grateful for this learning community's rating system and the comments she found on the content as these tools help her zero in on exactly what she needs for her students to be involved and successful learners. She knows that she will need to come back later to use and revise assessments created by her Kentucky colleagues in order to pretest her students on competency levels and learning styles, tailoring the units to meet their specific needs. During her searches, she noticed science resources that had been redesigned and used successfully with special needs students that could add to her resource toolbox. She definitely knows that she will come back and contribute her course to the online Depot once she has tested it with her students. After all, she can't think of a better way to pay it forward and give back to the community that has given

her so much. Mary packs up her laptop, slings her satchel over her shoulder, and walks into the night, happily breathing the fresh and fragrant mountain air.

This is the essence of the Kentucky Learning Depot - Nurturing Mary as a 21st century educator for Kentucky's 21st century students.

The Southern Regional Education Board (SREB) is leading an effort called SCORE, the Sharable Content Object Repositories for Education, so that all educators in the 16 member states can share learning content to improve teaching and learning. In 2007, CPE and KDE, as SCORE members, established the Kentucky Learning Depot as a single-point-of-entry repository of high-quality digital content aligned with standards and competencies for educators and learners in Kentucky in the context of a global learning community. The Depot provides a portal where users can browse, search, upload, download, update, rate, reuse, and repurpose flexible, modular learning content called "learning objects" created by educators in Kentucky and throughout the world. In August 2007, the Kentucky Learning Depot was selected by the Florida Orange Grove Repository as a pilot for their EnCoRe Blueprint Project, which is funded by the Fund for the Improvement of the Postsecondary Education (FIPSE). As a pilot state, Kentucky is working with Florida to build a sustainable national model for statewide digital repositories. In January 2008, funded by CPE and KDE, the Depot built a prototype repository to assist work teams of 60+ members of the P20 community in the planning process. The Depot Steering Committee identified developmental math as the initial content focus. In January 2009, AT&T Foundation awarded $136,171 to launch the Depot Pilot with 1) the development and piloting of quality indicators; 2) solicitation and submission of developmental math learning assets and objects; and 3) evaluation of process for submission, review, and use of developmental math content.

This Kentucky P20 gateway and gatekeeper of quality digital learning content can be scaled up to impact teaching and learning in a way not possible if done by an individual institution. Only by tapping the statewide resources, infrastructure, agreed-upon competency standards and common course units, professional development and buy-in by educators can this new system effectively transform our approach to teaching and learning in the 21st century.

As the creation, distribution, and delivery infrastructure for learning content is entrenched with the publishing industry, this repository and delivery system needs to partner with textbook publishers, for they have historically collaborated with our educators and have served as gatekeepers and provide templates for current course development efforts. A win-win relationship can be fostered to help move this infrastructure effort towards a shared and transformed business model.

The international movement towards open education and Open Educational Resources (OER) is gathering strength. MIT's OpenCourseWare is a good example. The Depot repository and delivery system is another example of a resource that includes peer-reviewed Open Textbooks as

an alternative for educators. Open Textbooks enables educators to share educational best practices and transfers benefits to students as the cost of textbooks is decreased with on-demand printing and targeted chapter selections in the Open Textbooks environment.

The Kentucky Learning Depot, a 21st century learning content repository and delivery system, has gone through a solid and highly collaborative planning process. By providing a digital commons for best practices and a learning community for educators, by partnering with publishing industry, and by collaborating with OER repositories, this system is poised to be one of the key ingredients for 21st century classrooms.

Project Team (Project Manager(s), Content Experts, Instructional Designers, etc.):

Project Managers:

Allen Lind, Vice President for Information & Technology, CPE

Ling-yuh W. (Miko) Pattie, Senior Advisor, Information & Technology, CPE (Formerly the Founding Director of the Kentucky Virtual Library)

Project Work Teams:

Depot Steering Committee – Chair, Ann Riggs (Education Cabinet)

Depot Content Team – Co-chairs, Paula White (KDE) and Lesia Lennox (Morehead)

Depot Metadata Team – Chair, Stephen Noble (UofL)

Depot Training Team – Co-chairs, Sarah Mann (NKU) and Misty Hanks (Morehead)

Depot Infrastructure Team – Chair, Gary Buchholz (Education Cabinet)

Project Operating Teams:

Depot Metadata Tagging Team – Digital Initiatives, University of Louisville Library

Depot Content Review Team – College of Education, Morehead State University

Project Budget & Amount of Economic Stimulus Funds Requested:

1. Software	$ 440,000	4. Training & Support for Educators	$ 350,000
2. Hardware & Hosting	$ 375,000	5. Digital Content	$325,000
3. Technical Support	$200,000	6. Administrative Support	$310,000
		TOTAL (2 Years)	**$2,000,000**